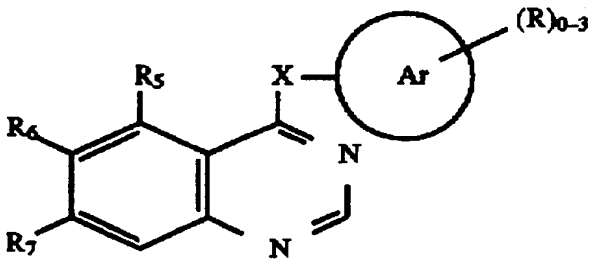
The Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claim 1. (Original) A method for the treatment of bone disease in a patient suffering from such disorder comprising administering to said patient an effective amount of a composition having the formula:



wherein

Ar is a substituted or unsubstituted mono- or bi-cyclic aryl or heteroaryl ring system of about 5 to about 12 atoms and where each monocyclic ring may contain 0 to about 3 hetero atoms, and each bicyclic ring may contain 0 to about 4 hetero atoms selected from N, O, and S provided said hetero atoms are not vicinal oxygen and/or sulfur atoms and where the substituents may be located at any appropriate position of the ring system and are described by R;

X is a bond, O, S, SO, SO_2, OCH_2, C=C, C≡C, C=S, SCH_2, NH, $NHCH_2$, NR_4, or NR_4CH_2;

R independently includes hydrogen, alkyl, phenyl, aralkyl, aralkenyl, hydroxy, hydroxyalkyl, alkoxy, alkoxyalkyl, aralkoxy, aryloxy, acyloxy, halo, haloalkyl, nitro, cyano, amino, mono- and di-alkylamino, acylamino, carboxy, carboxyalkyl, carbalkoxy, carbaralkoxy, carbalkoxyalkyl, carbalkoxyalkenyl, aminoalkoxy, amido,

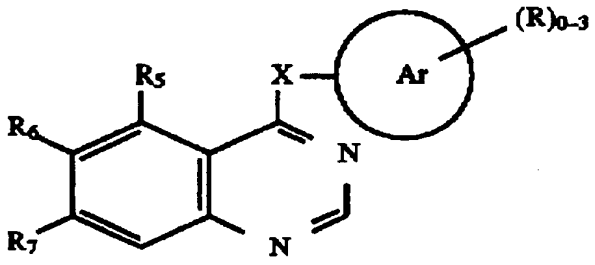
mono- and di-alkylamido, and N,N-cycloalkylamido, sulfonyl, mono- and di-alkyl sulfonyl, sulfamoyl, mono- and di-alkyl sulfamoyl, halophenyl, or benzoyl, and R and R together may also form a ketone group;

R_4 is alkyl, -CH2-CH2- or –CH2-CH2-CH2-; and

R_5, R_6, and R_7 are independently hydrogen, alkyl, alkylthio, cycloalkyl, hydroxy, alkoxy, aralkoxy, aryl, halo, haloalkyl, carboxy or carbalkoxy; or

a pharmaceutically acceptable salt thereof.

Claim 2. (Previously Presented) A method for the treatment of inflammation in a patient suffering from such disorder comprising administering to said patient an effective amount of a composition having the formula:



wherein

Ar is a substituted or unsubstituted mono- or bi-cyclic aryl or heteroaryl ring system of about 5 to about 12 atoms and where each monocyclic ring may contain 0 to about 3 hetero atoms, and each bicyclic ring may contain 0 to about 4 hetero atoms selected from N, O, and S provided said hetero atoms are not vicinal oxygen and/or sulfur atoms and where the substituents may be located at any appropriate position of the ring system and are described by R;

X is a bond, O, S, SO, SO_2, OCH_2, C=C, C≡C, C=S, SCH_2, NH, $NHCH_2$, NR_4, or NR_4CH_2;

R independently includes hydrogen, alkyl, phenyl, aralkyl, aralkenyl, hydroxy, hydroxyalkyl, alkoxy, alkoxyalkyl, aralkoxy, aryloxy, acyloxy, halo, haloalkyl, nitro, cyano, amino, mono- and di-alkylamino, acylamino, carboxy, carboxyalkyl, carbalkoxy, carbaralkoxy, carbalkoxyalkyl, carbalkoxyalkenyl, aminoalkoxy, amido, mono- and di-alkylamido, and N,N-cycloalkylamido, sulfonyl, mono- and di-alkyl sulfonyl, sulfamoyl, mono- and di-alkyl sulfamoyl, halophenyl, or benzoyl, and R and R together may also form a ketone group;

R_4 is alkyl, -CH2-CH2- or –CH2-CH2-CH2-; and

R_5, R_6, and R_7 are independently hydrogen, alkyl, alkylthio, cycloalkyl, hydroxy, alkoxy, aralkoxy, aryl, halo, haloalkyl, carboxy or carbalkoxy; or

a pharmaceutically acceptable salt thereof.

Claim 3. (Original) A method of inhibiting cell proliferation, differentiation, or mediator release in a patient suffering from a disorder characterized by such proliferation and/or differentiation and/or mediator release comprising administering to a patient a composition selected from:

4-(naphthalen-2-ylethynyl)-6,7-dimethoxyquinazoline,

4-(4-hydroxyphenyl)-6,7-dimethoxyquinazoline hydrochloride

4-phenylacetylenyl-6,7-dimethoxyquinazoline,

4-(2-phenylphenyl)-6,7-dimethoxyquinazoline,

4-(1-methylindol-3-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(4-phenylpiperidin-1-yl)-6,7-dimethoxyquinazoline,

4-[4-(3-chlorophenyl)piperazin-1-yl]-6,7-dimethoxyquinazoline,

(±)-4-(2-methyl-1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methoxyanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-chloro-anilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(2,3-dihydroindol-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-trifluoromethylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)quinazoline hydrochloride and

4-(naphthalen-1-ylethynyl)-6,7-dimethoxyquinazoline; or

a pharmaceutically acceptable salt thereof.

Claim 4. (Previously Presented) The method of Claim 3 where said composition administered is selected from:

4-(indazol-5-ylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-benzylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)-6-chloroquinazoline,

4-(N-ethyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-benzylamino)-6,7-dimethoxyquinazoline,

4-(4-methoxybenzylamino)-6,7-dimethoxyquinazoline,

4-(3,5-dimethoxybenzylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)quinazolin-4-yl) hydrochloride,

4-(4-morpholin-4-ylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(3-methoxythiophenoxy)-6,7-dimethoxyquinazoline,

4-[N-(5-indanyl)amino]-6,7-dimethoxyquinazoline hydrochloride,

4-(3-chlorothiophenoxy)-6,7-dimethoxyquinazoline,

4-(3-aminopyrazolyl)-6,7-dimethoxyquinazoline hydrochloride,

4-(1,4-benzodioxan-6-ylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(α-naphthylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(β-naphthylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(cyclohexylanilino)-6,7-dimethoxyquinazoline,

4-(N-methylanilino)-6,7-dimethoxyquinazoline hydrochloride, and

4-(3-chlorophenoxy)-6,7-dimethoxyquinazoline; or

a pharmaceutically acceptable salt thereof.

Claim 5. (Currently Amended) A pharmaceutical composition for effectively inhibiting CSF-1R tyrosine kinase activity by exhibiting inhibition of cell proliferation and/or differentiation and/or mediator release comprising a CSF-1R receptor inhibiting effective amount of a compound selected from:

4-(naphthalen-2-ylethynyl)-6,7-dimethoxyquinazoline,

4-(4-hydroxyphenyl)-6,7-dimethoxyquinazoline hydrochloride

4-phenylacetylenyl-6,7-dimethoxyquinazoline,

~~4-(2-phenylphenyl)-~~ 4-(3-phenylphenyl)- 6,7-dimethoxyquinazoline,

4-(1-methylindol-3-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(4-phenylpiperidin-1-yl)-6,7-dimethoxyquinazoline,

4-[4-(3-chlorophenyl)piperazin-1-yl]-6,7-dimethoxyquinazoline,

(±)-4-(2-methyl-1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methoxyanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-chloro-anilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(2,3-dihydroindol-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-trifluoromethylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)quinazoline hydrochloride and

4-(naphthalen-1-ylethynyl)-6,7-dimethoxyquinazoline; or

a pharmaceutically acceptable salt thereof.

Claim 6. (Original) The pharmaceutical composition of Claim 5 where said composition is selected from:

4-(indazol-5-ylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-benzylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)-6-chloroquinazoline,

4-(N-ethyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-benzylamino)-6,7-dimethoxyquinazoline,

4-(4-methoxybenzylamino)-6,7-dimethoxyquinazoline,

4-(3,5-dimethoxybenzylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)quinazolin-4-yl) hydrochloride,

4-(4-morpholin-4-ylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(3-methoxythiophenoxy)-6,7-dimethoxyquinazoline,

4-[N-(5-indanyl)amino]-6,7-dimethoxyquinazoline hydrochloride,

4-(3-chlorothiophenoxy)-6,7-dimethoxyquinazoline,

4-(3-aminopyrazolyl)-6,7-dimethoxyquinazoline hydrochloride,

4-(1,4-benzodioxan-6-ylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(α-naphthylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(β-naphthylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(cyclohexylanilino)-6,7-dimethoxyquinazoline,

4-(N-methylanilino)-6,7-dimethoxyquinazoline hydrochloride, and

4-(3-chlorophenoxy)-6,7-dimethoxyquinazoline; or

a pharmaceutically acceptable salt thereof.

Claim 7. (Original) A compound selected from:

4-(indazol-5-ylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-benzylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)-6-chloroquinazoline,

4-(N-ethyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-benzylamino)-6,7-dimethoxyquinazoline,

4-(4-methoxybenzylamino)-6,7-dimethoxyquinazoline,

4-(3,5-dimethoxybenzylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methylanilino)quinazolin-4-yl) hydrochloride,

4-(4-morpholin-4-ylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(3-methoxythiophenoxy)-6,7-dimethoxyquinazoline,

4-[N-(5-indanyl)amino]-6,7-dimethoxyquinazoline hydrochloride,

4-(3-chlorothiophenoxy)-6,7-dimethoxyquinazoline,

4-(3-aminopyrazolyl)-6,7-dimethoxyquinazoline hydrochloride,

4-(3,6-dioxananilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(α-naphthylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(β-naphthylamino)-6,7-dimethoxyquinazoline hydrochloride,

4-(cyclohexylanilino)-6,7-dimethoxyquinazoline,

4-(N-methylanilino)-6,7-dimethoxyquinazoline hydrochloride, and

4-(3-chlorophenoxy)-6,7-dimethoxyquinazoline; or

a pharmaceutically acceptable salt thereof.

Claim 8. (Currently Amended) A compound selected from:

~~4-(naphthalen-2-ylethynyl)-6,7-dimethoxyquinazoline,~~

4-(4-hydroxyphenyl)-6,7-dimethoxyquinazoline hydrochloride

~~4-phenylacetylenyl-6,7-dimethoxyquinazoline,~~

~~4-(2-phenylphenyl)-~~ 4-(3-phenylphenyl)-6,7-dimethoxyquinazoline,

4-(1-methylindol-3-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(4-phenylpiperidin-1-yl)-6,7-dimethoxyquinazoline,

4-[4-(3-chlorophenyl)piperazin-1-yl]-6,7-dimethoxyquinazoline,

(±)-4-(2-methyl-1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methoxyanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-chloro-anilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(2,3-dihydroindol-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-trifluoromethylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride, and

4-(N-methyl-3-chloroanilino)quinazoline hydrochloride ~~and~~

~~4-(naphthalen-1-ylethynyl)-6,7-dimethoxyquinazoline;~~ or

a pharmaceutically acceptable salt thereof.

Claim 9. (Previously Presented) A method for the treatment of inflammation in a patient suffering from such disorder comprising administering to said patient an effective amount of a composition selected from:

4-(naphthalen-2-ylethynyl)-6,7-dimethoxyquinazoline,

4-(4-hydroxyphenyl)-6,7-dimethoxyquinazoline hydrochloride

4-phenylacetylenyl-6,7-dimethoxyquinazoline,

4-(2-phenylphenyl)-6,7-dimethoxyquinazoline,

4-(1-methylindol-3-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(4-phenylpiperidin-1-yl)-6,7-dimethoxyquinazoline,

4-[4-(3-chlorophenyl)piperazin-1-yl]-6,7-dimethoxyquinazoline,

(±)-4-(2-methyl-1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(1,2,3,4-tetrahydroquinolin-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-methoxyanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-4-chloro-anilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(2,3-dihydroindol-1-yl)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-trifluoromethylanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)-6,7-dimethoxyquinazoline hydrochloride,

4-(N-methyl-3-chloroanilino)quinazoline hydrochloride and

4-(naphthalen-1-ylethynyl)-6,7-dimethoxyquinazoline; or

a pharmaceutically acceptable salt thereof.